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CHRONICLE OF THE WORLD HEALTH ORGANIZATION

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RECENT AND FORTHCOMING MEETINGS

1949	
19-21 September	Panel of Experts on the Revision of the Questionnaire for Trusteeship Territories, and the Standard Form for Non-Self-Governing Territories, Geneva
19-24 September	WHO Expert Committee on Plague, first session, Geneva
26-28 September	WHO Regional Committee for South-East Asia, second session, New Delhi
26 September-5 October	WHO Expert Committee on the Unification of Pharmacopoeias, fifth session, Geneva
10-20 October	WHO Expert Committee on Venereal Infections, third session, Washington, D.C.
12-15 October	WHO Regional Committee for the Eastern Mediterranean, second session, Geneva
12-20 October	WHO Expert Committee on Venereal Infections : Subcommittee on Serology and Laboratory Aspects, Washington, D.C.
24-28 October	Joint FAO/WHO Expert Committee on Nutrition, Geneva
24-29 October	Joint OIHP/WHO Study-Group on African Schistosomiasis, first session, Cairo
18-19 November	Joint OIHP/WHO Study-Group on Cholera, third session, New Delhi
1-6 December	WHO Yellow-Fever Panel, first session, Geneva
5-14 December	WHO Expert Committee on International Epidemiology and Quarantine, second session, Geneva
12-14 December	Joint ILO/WHO Expert Committee on the Hygiene of Seafarers, first session, Geneva
1950	
6 January	WHO Executive Board : Standing Committee on Administration and Finance, Geneva
9-14 January	WHO Expert Committee on Habit-Forming Drugs, second session, Geneva
16 January	WHO Executive Board, fifth session, Geneva
6-11 February	WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel, first session, Geneva
20-26 February	WHO Expert Committee on Nursing, first session, Geneva
February, tentatively	Joint ILO/WHO Expert Committee on Industrial Hygiene, first session, Geneva
February, tentatively	WHO Expert Committee on Health Statistics : Subcommittee on the Definition of Stillbirth and Abortion
February, tentatively	WHO Expert Committee on Health Statistics : Subcommittee on Cancer
20 March, tentatively	WHO Expert Committee on Health Statistics : Subcommittee on Hospital Statistics
17 April, tentatively	WHO Expert Group, Meeting on Prematurity, Geneva
20 April, tentatively	WHO Expert Committee on Health Statistics, second session
20-29 April	WHO Expert Committee on the Unification of Pharmacopoeias, sixth session, New York
8 May	Third World Health Assembly, Geneva

MENTAL HEALTH

One of WHO's most difficult tasks is attempting to win acceptance of mental health as an integral part of the economic and social welfare of the world's peoples and as a sphere for international activity and co-operation. Psychology and psychiatry are comparatively new sciences; full recognition has not yet been accorded to the concept of the human mind as the principal "unexplored territory" of the present age or to the physiological, social, and economic ramifications of mental health. It can therefore be readily understood why this part of the WHO programme has been the subject of some controversy, specifically in the case of the Economic and Social Council (Economic Committee : Ninth Session) discussions of WHO's proposed contribution to the Expanded Programme of Technical Assistance, proposals for which were accepted by a large majority at the Second World Health Assembly.

It is perhaps natural that medical and economic interests should place emphasis primarily on keeping man alive and productive. Those who believe that this is not enough, that a broader outlook is necessary, are

FIG. 1. EXPERT COMMITTEE ON MENTAL HEALTH, FIRST SESSION

Standing, from left to right : Professor A. C. Pacheco e Silva ; Professor J. Hádlík ; Dr G. R. Hargreaves (WHO) ; Dr L. Yü-Lin Ch'eng ; Dr M. V. Govindaswamy ; Dr T. F. Rodger ; seated : Dr W. C. Menninger (Chairman)

consequently faced with the problem of proving that mental health is a "paying proposition". Unfortunately, this is somewhat difficult, not only because of the dearth of statistical investigations, but also because the effects of mental ill-health are often not recognized as such or are concealed because of the social stigmata associated with mental disorders.

In well-developed countries, the economic implications of mental ill-health are expressed in terms of man-hours lost in industrial productivity and in the cost of treatment and other social services. The former is illustrated by an investigation conducted by the Medical Research Council of Great Britain which demonstrated that, in the factories surveyed, psychoneurotic disorders caused a loss of productive time slightly greater than that due to the common cold.[1] An example of the latter may be found in the US Veterans Administration mental hygiene clinics, at which 14,500 veterans are seen 5 or more times each at a cost of about $5.75 per patient-visit. More important in this instance, however, is the estimation that, without this outpatient treatment, between 4,000 and 6,000 of these veterans would have to be confined to mental hospitals where, under older methods of treatment, they might have remained for from 3 months to 30 years at a cost of $5.00 to $10.00 per day.[2]

In underdeveloped territories, economic development is often jeopardized by psychological resistance to measures intended to promote physical health and socio-economic progress. It is necessary to break down this resistance, through education, and to apply present-day knowledge of social psychology in an effort to avoid the maladjustments which may accompany industrialization of these territories.

The role of mental health in physical well-being is gaining increasing recognition. Studies in psychosomatic medicine are revealing the psychological factors in many types of ill health, including, in addition to certain organic disorders, proclivity to accidents, and the "epidemiology" of habitual sexual promiscuity, which is important in the prevention of venereal disease.[3]

The social significance of mental health is evident in all aspects of human existence. The success of human relationships of every type is dependent upon the mental health of the individuals involved; and the effects of unsuccessful relationships are costly, from the standpoint of economic losses as well as of human misery.

WHO has attempted to outline a programme in mental health which would include as many of these problems as possible and lay a foundation for future action. The Expert Committee on Mental Health has been given the responsibility of advising the Organization on ways and means of implementing this programme.

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[1] Fraser, R., *et al.* (1947) *Rep. industr. Hlth Res. Bd, Lond.* No. 90, p. 5
[2] Hawley, P. R. (1949) *Amer. J. Psychiat.* **105**, 7
[3] *Off. Rec. World Hlth Org.* **18**, 77

At its first session, held in Geneva from 29 August to 2 September 1949,[4] this committee sought to formulate principles and recommendations based on mental health problems as they actually exist throughout the world—a practical approach which should lead to practical solutions. Its first consideration was the extreme differences among various countries in the level and scope of development of treatment facilities for all types of psychological disorder. Faced with disparities such as 5,000 psychiatrists and 700,000 psychiatric beds for a population of 160,000,000 in the United States as compared with not more than 10 psychiatrists and less than 2,000 psychiatric beds for a population of 450,000,000 in China, the committee was forced to conclude that it will not be possible within the foreseeable future to provide throughout the world therapeutic psychiatric facilities at the level already provided in the more developed countries, let alone the level at which the well-developed countries are aiming (1 psychiatrist per 20,000 of the population). The ultimate solution of mental health problems therefore lies in the *preventive* application of psychiatric knowledge, a field relatively untouched even in well-developed countries.

With this idea of prevention as a keynote, the Expert Committee on Mental Health formulated certain principles upon which the future WHO mental health programme should be based :

1. Encouragement of incorporation into public-health services of the responsibility for promoting the mental as well as the physical health of the community. This entails comprehensive training of public-health officers in mental as well as physical hygiene and might lead to the development of a specialty of mental hygiene and a profession of public mental hygiene officer. Changes in the education of nurses and other public-health workers would also be necessary. The committee recommends that each ministry of health should include a section devoted to mental health. It is not intended, however, that an attempt be made to turn public-health officers into psychiatrists; their task in mental health work will be more concerned with the recognition and eradication of factors in the community which are harmful to the healthy psychological development of individuals, rather than to the treatment of the results of those factors.

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[4] The following took part in this session :

Members :

Dr L. Yü-Lin Ch'eng, Provincial Mental Hospital, Taipeh City, Formosa, China
Professor J. Hádlík, Director, Psychiatric Clinic, University of Palacký, Olomouc, Czechoslovakia
Dr W. C. Menninger, The Menninger Foundation, Topeka, Kansas, USA (*Chairman*)
Dr T. F. Rodger, Professor of Psychological Medicine, University of Glasgow, United Kingdom (*Rapporteur*)
Professor A. C. Pacheco e Silva, Professor of Clinical Psychiatry, University of São Paulo, Brazil

Co-opted Member :

Dr M. V. Govindaswamy, Superintendent, Mysore State Mental Hospital, Bangalore, India

Secretary :

Dr G. R. Hargreaves, Chief, Mental Health Section, WHO

2. Emphasis upon the therapeutic and preventive psychiatry of childhood. The skilful treatment of minor psychological disorders in childhood has a positive preventive effect so far as adult psychiatry is concerned, and the application of preventive mental hygiene measures makes its greatest impact during infancy and childhood.

3. Application to local problems of the best scientific knowledge available and of the most appropriate methods, rather than reproduction of techniques employed in other countries.

4. Development of clinical psychiatry in all countries. This is important not only because of its therapeutic value, but also because clinical psychiatry provides opportunities for teaching and research which, in turn, may point the way to further applications of a preventive nature.

5. Integration of mental health activities wherever possible with other WHO programmes, and co-operation with the UN and its specialized agencies (particularly UNESCO and ILO), and with non-governmental agencies such as the World Federation for Mental Health.[5] The committee noted and made recommendations concerning WHO activities regarding alcoholism and drug addiction; maternal and child health; international statistical classification of diseases, injuries, and causes of death; morbidity statistics; venereal diseases; and unification of pharmacopoeias. It discussed in considerable detail the UN study on the prevention of crime and treatment of offenders.

Among other matters concerning which the committee made recommendations are the following :

1. *Education.* Priority should be given to :

(*a*) Recasting undergraduate medical education to ensure understanding of normal psychological development and of the origin and nature of common psychological disorders.

(*b*) Education of public-health workers. The committee recommended that WHO sponsor, in collaboration with an internationally known institute of public health, experimental postgraduate courses in preventive mental health work for public-health officers already in the field.

(*c*) Special training for public-health nurses.

(*d*) The possibility of training facilities for specialist public mental health officers.

In postgraduate psychiatric education, a dynamic conception which would integrate biological, psychological, social, and anthropological sciences should be stressed. The committee specifically recommended that WHO assist in developing in each region a centre for postgraduate teaching of all members of the psychiatric team, including psychiatrists,

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[5] *Chron. World Hlth Org.* 1948, **2**, 220

clinical psychologists, psychiatric social workers, psychiatric nurses, and other psychiatric auxiliaries.

2. *Collection of information.* The committee recommended that WHO serve as a collection centre and clearing-house for information regarding treatment facilities, relevant statistics, education, legislation, crime, alcoholism and drug addiction, and public attitudes as these relate to mental health.

3. *Advisory and demonstration services to governments.* It was suggested that a consultant be sent to any country requesting these services. The consultant would, wherever possible, collaborate with the local experts in surveying the needs of the country and outlining a plan of action. The Republic of the Philippines is the first country to request WHO aid in mental health.[6]

4. *Research.* The committee recommended that WHO foster research along the following lines :

(*a*) Biological, psychological, and cultural determinants of personality.

(*b*) Relationship between individual personality and patterns of group behaviour and relationships.

(*c*) Effects of rapid changes of culture pattern on mental health and the means of preventing and mitigating any ill effects of such changes.

(*d*) The extent to which the incidence of psychosomatic affections is influenced by social, economic, and cultural factors and by individual characteristics and personality structure.

(*e*) Relationship between psychological disorders or states on the one hand and infective processes, nutritional deficiencies, and biochemical disturbances on the other.

(*f*) Etiology and treatment of psychiatric disorders.

The report on the first session of the Expert Committee on Mental Health will be published, after approval by the Executive Board, in the *World Health Organization : Technical Report Series.*

[6] See p. 32

NEW HEALTH PROGRAMMES IN SOUTH-EAST ASIA

The Regional Committee for South-East Asia met, for the second time, from 26 to 28 September 1949 at New Delhi.[1] The general principles governing improvement in the health conditions of the population had already been discussed and agreed upon by the WHO expert committees and the World Health Assembly. Consequently, the purpose of this brief session was not to study these principles again but rather to consider ways and means for implementing them and adapting them to the extremely variable conditions of the different territories.

The committee included representatives of Afghanistan, Burma, Ceylon, France, India, Portugal, and Thailand.[2] After hearing an account of the position in the various countries and examining the problems facing the

FIG. 2. WHO REGIONAL COMMITTEE FOR SOUTH-EAST ASIA, SECOND SESSION - I

Seated at table, from left to right : Dr Tha Mya (Burma) ; Mrs Aung San (Burma) ; Dr Faqir Mohamed (Afghanistan) ; Dr K. C. K. E. Raja (India) ; Dr S. F. Chellappah (WHO) ; C. H. Moore (WHO) ; Dr Martha M. Eliot (Assistant Director-General, WHO) ; Sir Arcot L. Mudaliar (India)

[1] A brief report on the first session appeared in *Chron. World Hlth Org.* 1948, **2**, 225.

[2] The list of delegates and observers taking part in the meeting is given on page 12.

FIG. 3. WHO REGIONAL COMMITTEE FOR SOUTH-EAST ASIA, SECOND SESSION - II

Seated round table, beginning from left: Dr S. Daengsvang (Thailand); précis writer; Rajkumari Amrit Kaur (India); Dr K. C. K. E. Raja (India); Dr W. G. Wickremesinghe (Ceylon); a secretary; Dr Tha Mya (Burma); Mrs Aung San (Burma); Dr Faqir Mohamed (Afghanistan); S. W. R. D. Bandaranaike (Ceylon), Chairman; Dr C. Mani (Regional Director)

governments, the committee took certain decisions with a view to solving these problems, taking care to ensure that the countries of the region would derive maximum benefit from the aid offered by WHO. The committee, convinced of the need for close co-operation—within the framework of WHO—between the member countries, adopted joint solutions, particularly with respect to the teaching and training of personnel. It drew up recommendations inspired by this spirit of co-operation, the most important of which are summarized below :

Joint FAO/WHO Project

The committee welcomed with great satisfaction the joint FAO/WHO project for controlling disease and increasing food production.[3] This project is clearly of special interest to the countries of South-East Asia, where the effects of morbidity on agricultural production are acutely felt. The committee expressed the wish that several demonstration areas be established in South-East Asia, particularly in those countries which would be prepared to meet part of the expenditure involved. It invited governments to submit to the Regional Director proposals concerning areas suitable for these operations.

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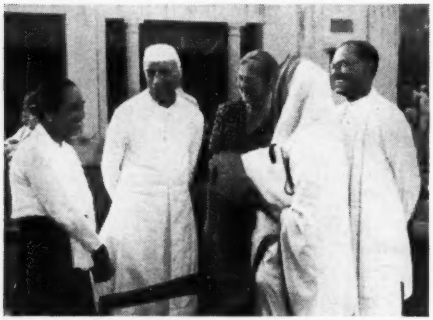
[3] *Chron. World Hlth Org.* 1949, 3, 175

Malaria

During 1950 and 1951, a great effort should be made to intensify malaria control, including, in particular, the introduction and extension of the use of insecticides with a residual action.

In order to develop teaching facilities, an essential factor in carrying out such a programme, the committee proposed that courses in malariology, similar to those contemplated at Singapore, be organized at the Malaria Institute of India, New Delhi, and at the Malaria Field Training Centre, Ceylon. These courses would be open to nationals of all countries in the region. It is very important that the countries concerned have at their disposal the insecticides essential for the control of insect-transmitted diseases and that they receive the necessary equipment. The committee therefore recommended to Member States that they implement without delay the resolution of the Economic and Social Council of the United Nations and facilitate the supply of such material by decreasing customs tariffs, issuing export and import licences, etc.

FIG. 4. WHO REGIONAL COMMITTEE FOR SOUTH-EAST ASIA, SECOND SESSION - III



From left to right : Mrs Aung San, Pandit Jawaharlal Nehru, Dr Martha M. Eliot, Rajkumari Amrit Kaur, S. W. R. D. Bandaranaike

Tuberculosis

The committee recommended that the countries of the region intensify considerably the BCG programmes at present being carried out [4] and undertake vaccination in places where it has not yet been started. It requested the help of WHO in setting up a centre for the teaching and training of tuberculosis workers.

Venereal Diseases

The WHO demonstration team at present working in the Himachal Pradesh area,[5] in the foothills of the Himalayas, could serve as a temporary instruction centre. The committee recommended the governments of the

[4] *Chron. World Hlth Org.* 1948, **2**, 229, 230 ; 1949, **3**, 24
[5] *Chron. World Hlth Org.* 1949, **3**, 294

region to send their venereal-disease specialists to study control methods and laboratory techniques at the headquarters of the team in Simla.

Pestilential Diseases

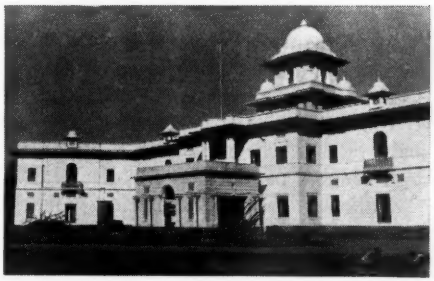
The committee welcomed the WHO projects for the demonstration of plague-control methods in India. With regard to smallpox, it recommended the countries of the region to make vaccination and re-vaccination compulsory and to ensure that the lymph used in vaccination is of good quality.

Other Questions

The presence of a specialist regional adviser will lead to considerable improvements in the field of maternal and child health. Moreover, recommendations made concerning problems of nutrition, sanitation, and housing bring new hope to the peoples of the region.

The question of medical supplies was also examined by the committee. In view of the tasks awaiting them and the considerable extension of health programmes, it is certainly to the interest of the countries of the region to endeavour to make themselves partially self-sufficient by developing within their own territory the production of substances used in disease control, such as insecticides, antibiotics, vaccines, galenicals, synthetic drugs, etc. Before any decisions are taken on this subject, an inquiry should be conducted throughout the region. Consequently, WHO was requested to send a small group of experts to survey the needs of the individual countries and their resources in raw materials, technical personnel, and institutions capable of assisting in the production of medical supplies. Finally, the group of experts should ascertain to what extent the governments would be willing to make a joint effort. Priority should be given to the production of insecticides, sulfonamides, penicillin, streptomycin, and antimalarial drugs.

FIG. 5. PATIALA HOUSE, NEW DELHI, HEADQUARTERS OF THE WHO REGIONAL OFFICE FOR SOUTH-EAST ASIA



Part of this building has been placed at the disposal of WHO by the Indian Government

DELEGATES AND OBSERVERS AT THE CONFERENCE

AFGHANISTAN	Dr Faqir Mohamed
BURMA	Mrs Aung San, Dr Tha Mya
CEYLON	S. W. R. D. Bandaranaike (*Chairman*), Dr W. G. Wickremesinghe
FRANCE	C. H. Belle, Médecin-Colonel Bigot
INDIA	Rajkumari Amrit Kaur, Dr K. C. K. E. Raja, Dr P. V. Benjamin, Dr O. H. Koenigsberger, Dr C. V. Ramchandani, Lieutenant-Colonel J. Singh
PORTUGAL	Dr F. J. C. Cambournac, Dr J. M. P. de Figueiredo
THAILAND	Dr S. Daengsvang (*Vice-Chairman*)
UNITED NATIONS	B. Leitgeber
FAO	P. V. Acharya
ILO	K. E. Mathew
UNESCO	Dr H. C. Yin
UNICEF	T. G. Davies
WHO (Geneva)	Dr Martha M. Eliot, F. Horine, C. H. Moore
INDIAN RED CROSS SOCIETY	S. B. B. Singh

The French and Portuguese delegates represented French India and Portuguese India respectively, territories for the conduct of whose international relations they are responsible.

ENVIRONMENTAL SANITATION : FOUNDATION OF PUBLIC HEALTH

First Session of the Expert Committee on Environmental Sanitation

More than seventy years ago Dr M. von Pettenkofer showed how, in the city of Munich alone, bad hygienic conditions and the resulting high death-rate caused the loss of 3,400,000 working days each year. Thanks to von Pettenkofer's efforts to improve sanitary conditions, Munich, at that time scarcely more than a small town, was able to save 25 million florins over a period of twenty-five years.[1]

Although in most countries sanitary conditions have considerably improved during the last fifty years, public-health officers still have a tremendous task to perform. Pollution of drinking water and inadequate disposal of wastes result in intestinal diseases such as typhoid, the dysenteries, cholera, and the helminth diseases. Contaminated foods, such as milk, spread brucellosis and certain forms of tuberculosis. The presence of insect vectors, particularly flies, in overcrowded dwellings, generally

[1] From : Sigerist, H. E., Introduction to Pettenkofer, M. von (1941) *The value of health to a city*, Baltimore

FIG. 6. EXPERT COMMITTEE ON ENVIRONMENTAL SANITATION, FIRST SESSION

Standing, from left to right : Professor R. De León, Professor G. Macdonald, S. Pincus (WHO), Professor V. Puntoni ; seated, from left to right : Professor K. Subrahmanyan, Professor A. Wolman (Chairman), Professor M. Petrik

maintains foci of trachoma and ophthalmia. Rats and fleas transmit plague; lice are vectors of typhus. In other words, sanitary conditions are largely responsible for the spread of infectious diseases, and measures for improvement of sanitation must form an integral part of any programme for their control.

For many years the physician and the drugs which he prescribed were considered the only effective means of combating disease. Such a conception of medicine is today out of date. The scope has been widened to include various aspects of preventive medicine, of which environmental hygiene is one of the essential factors. This development was stressed by Dr A. Stampar, President of the First World Health Assembly, when he stated that one of the tasks of WHO was " to contribute to the development of a new type of physician and specialized health worker, the type who will devote his services to those with impaired health, at the same time realizing that this is only part of the duties and work of the modern public-health doctor ".[2]

In the future, the work of the physician will be completed and assisted to an increasing degree by that of specialists such as nurses, social workers,

[2] *Off. Rec. World Hlth Org.* **13**, 31

and sanitary engineers. These professions, whose role has for a long time been underestimated, have assumed, and will assume, growing importance; they demand of those who devote themselves to them an increasingly high degree of technical training.

The importance ascribed to environmental sanitation is made evident by the large-scale programme which the governments of various countries have undertaken, with the assistance of organizations such as the United Nations International Children's Emergency Fund (UNICEF), WHO, and the Rockefeller Foundation, and by the establishment of a WHO Expert Committee on Environmental Sanitation. The task of this committee is to assist WHO in advising governments—particularly those who have to combat the great epidemic diseases—as to the most effective ways and means of improving sanitary conditions; it has also to suggest measures whereby interested countries may be assisted in training specialized technical personnel.

Role of Sanitary Engineering

During its first session, held in Geneva from 12 to 17 September 1949,[3] this committee examined, among other problems, the place which environmental sanitation should occupy in the health organization and programmes of the various countries.[4] It particularly stressed the necessity for strengthening governmental organizations in this field by placing the sanitary engineering services on a sufficiently high level within the administrative hierarchy for them to have some influence on the conduct of operations. These services would be responsible for initiating and expanding sanitary works. In many countries they are at present split up into several departments (public works, housing, industry, etc.); this lack of centralization weakens them and diminishes their authority. In the committee's opinion, the key positions should be held by specialized sanitary engineers capable, by virtue of their training, of making clear the vital necessity of

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[3] The following took part in this session :

Members :

Professor R. De León, Dean, Engineering School, Central University of Venezuela, Caracas, Venezuela
Professor G. Macdonald, Director, Ross Institute of Tropical Hygiene, London School of Hygiene and Tropical Medicine, London, United Kingdom
Professor M. Petrik, Professor of Public Health Engineering, Institute of Hygiene, Zagreb, Yugoslavia (*Rapporteur*)
Professor V. Puntoni, Professor of Hygiene, University of Rome, Italy
Professor K. Subrahmanyan, Professor of Sanitary Engineering, All-India Institute of Hygiene and Public Health, Calcutta, India (*Vice-Chairman*)
Professor A. Wolman, Professor of Sanitary Engineering, Johns Hopkins University, Baltimore, Md., USA (*Chairman*)

Observer :

Dr R. P. Burden, Sanitary Engineer, Paris Office, International Health Division, Rockefeller Foundation, Paris, France

Secretary :

S. Pincus, Chief, Environmental Sanitation Section, WHO

[4] The report on the first session of the Expert Committee on Environmental Sanitation will be published, after approval by the Executive Board, in the *World Health Organization : Technical Report Series.*

assigning environmental sanitation its proper place within the national programmes for disease control.

Great progress has already been made in several countries as a result of appointing sanitary engineers to key posts in organizations dealing with environmental sanitation. But in numerous other countries, including the most developed, there is a shortage of professionally qualified technicians for putting environmental sanitation programmes into action and supervising their execution. Professional training in environmental sanitation is therefore one of the subjects upon which, in the opinion of the committee, WHO should concentrate its efforts and lend its aid to governments. This aid might take various forms, including :

(*a*) granting of fellowships for study and for refresher courses to teachers of sanitary engineering and to sanitary engineers working in national public-health services;

(*b*) technical advice in the establishment or extension of the teaching of sanitary engineering;

(*c*) provision of teaching materials and laboratory equipment to schools or institutes, national or regional, specializing in training and research in sanitary engineering.

Education of the Public

The education of the public can play a considerable part in the improvement of public health—more so than in any other field. It is not merely a question of imparting elementary knowledge to the public, but of inducing the whole population to adopt such habits as will eliminate the possibilities of transmitting disease. It is particularly children of school age to whom it is desirable to appeal, inculcating in them habits of hygiene as an integral part of good social behaviour. Elementary hygiene should also be taught to personnel engaged in the production, handling, and distribution of foodstuffs and drinking water, as well as to persons, such as transport and theatre employees, etc., whose work brings them into contact with many people. In education, collaboration with UNESCO might be very fruitful, and the committee noted with satisfaction the liaison that has already been established in this matter between UNESCO and WHO.

Environmental Sanitation in WHO Programmes

One of the most effective means of demonstrating to governments and peoples the importance of environmental sanitation is, the committee believes, the integration of measures for sanitary improvement into WHO programmes. Whether it is a matter of maternal and child health (in Egypt and Texas, fly control has already had a marked influence on infant mortality rates) or of controlling malaria, cholera, or plague, it is desirable that demonstration teams in environmental sanitation should work in conjunction with teams combating diseases.

The committee expressed the wish that environmental sanitation should be included in one of the joint FAO/WHO programmes combining disease control with agricultural development, and that, in one of the selected areas, a demonstration of the various aspects of sanitary improvement should be carried out.

According to the committee, WHO should, in future, encourage the adoption of standard methods of analysing water, milk, and the chemicals used in sanitation practice, and develop an international standard technique and language so that information on this subject can be more easily exchanged.

INTERNATIONAL MEETING ON NUTRITION

Joint FAO/WHO Expert Committee on Nutrition

At the beginning of the last century Brillat-Savarin wrote : " la destinée des nations dépend de la manière dont elles se nourrissent ".[1] The idea of a connexion between the health, vitality, and development of the people and their nutrition is thus not new, but it is now more topical than ever. Recent scientific advances in agricultural production and in the manufacture of synthetic food factors, such as the vitamins, as well as the connexion discovered between certain diseases and food deficiencies, enable a more direct approach to be made now to the problem of nutrition on the international plane.

International organizations have already for many years been trying to improve the food supplies, inadequate both in quality and in quantity, with which millions of human beings have to be satisfied. In 1937, after having undertaken various work and investigations in connexion with nutrition, the Technical Commission on Nutrition of the League of Nations Health Organization laid down " the general principles for the composition of a sound diet calculated to ensure optimum growth and body maintenance ".[2] During its 1938 session, the Commission added some important conclusions dealing especially with the requirements for vitamins, inorganic elements, fats, and proteins, and with the milk requirements of infants, children, and expectant and nursing mothers. A special committee of the Technical Commission, which was given the task of studying nutrition in the East, in tropical countries, and in the colonial territories, recommended that " certain adjustments should be made in the sphere of agriculture to increase the production of protective foods ".[2]

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[1] Quoted by Drummond, J. C., Preface to Bacharach, A. L. (1938) *Science and nutrition*, London, p. v.

[2] These two quotations are extracts from the "Report on the work of the Health Organisation between June 1938 and April 1939 and on its 1939 programme", which appeared in *Bull. Hlth Org. L. o. N.* 1939, **8**, 1.

This conception of a fundamental approach to the problem has since then been accepted as the basis of the objectives of the Food and Agriculture Organization of the United Nations (FAO) which is concerned with the production of foodstuffs, and their distribution and consumption. FAO aids countries to develop the cultivation of the soil according to rational methods and to the special needs of each individual country.

For its part the World Health Organization is interested in the problem of nutrition because good nutrition is essential for optimal health. From the international standpoint, the diverse aspects of the question are so interwoven that it is impossible to make any rigorous distinction between them. Consequently, the two organizations intend to tackle them in close collaboration; a joint FAO/WHO committee has therefore been set up with the aim of studying questions of common interest.

This committee held its first meeting in Geneva from 24 to 28 October 1949.[3] Among the items on the agenda were projects for surveys of the nutritional requirements and the nutritional status of the people in different countries, for the study of the etiology and prevention of endemic goitre and of certain other deficiency diseases, and for research on diseases of nutritional origin which are still imperfectly understood.

Surveys of World Nutritional Needs

Surveys of nutritional status, calorie requirements, and diets in the various parts of the globe, as envisaged in the FAO/WHO programmes, should make it possible to obtain a general idea of the world position in this connexion. The assessment of nutritional status, for which WHO

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[3] The following were present at this meeting :

Members :

FAO :

Professor M. J. L. Dols, State Adviser on Nutrition ; Professor of Nutritional Science, University of Amsterdam, Netherlands

Lord Horder, Adviser to the Ministry of Food, London, United Kingdom (*Chairman*)

Dr V. N. Patwardhan, Director, Nutrition Research Laboratories, Coonoor, India

Dr Hazel K. Stiebeling, Chief, Bureau of Human Nutrition and Home Economics, US Department of Agriculture, Washington, D.C., USA

Professeur E. F. Terroine, Directeur du Centre national de Coordination des Etudes et Recherches sur la Nutrition et l'Alimentation, Centre national de la Recherche scientifique, Paris, France

WHO :

Professor G. Bergami, Professor of Biochemistry and Physiology ; Director, Istituto della Nutrizione del Consiglio Nazionale delle Ricerche, Rome, Italy

Dr J. F. Brock, Professor of Medicine, University of Cape Town, Union of South Africa

Professor J. de Castro, Director, Institute of Nutrition, University of Brazil, Rio de Janeiro, Brazil

Dr J. Salcedo, Field Supervisor, US Public Health Service ; Director, Institute of Nutrition, Manila, Philippines

Dr W. H. Sebrell, Medical Director, US Public Health Service ; Director, Institute of Experimental Biology and Medicine, Bethesda, Md., USA

Observers :

Dr Lu Gwei-Djen, Department of Natural Sciences, UNESCO

Dr M. de Viado, Social Security Section, ILO

Secretaries :

Dr W. R. Aykroyd, Director, Nutrition Division, FAO

Dr F. W. Clements, Chief, Nutrition Section, WHO

The report of the Joint FAO/WHO Expert Committee on Nutrition will be published, after approval by the Executive Board, in the *World Health Organization : Technical Report Series.*

is especially responsible, can be made by the clinical examination of representative individuals, by the determination of certain substances in the blood and, possibly, by physical and biochemical examination of certain tissues. Methods of analysis and assay have been developed but the results of the various examinations need to be co-ordinated. The committee recommended that nutrition surveys should be carried out on a national scale. In order to complete them, to increase their value, and to facilitate comparison between the data collected in different countries, it was suggested that standard questionnaires should be sent to governments.

Deficiency Diseases

The success which has crowned the efforts made in many countries to control diseases due to deficiencies of nutrients is extremely encouraging, so that it is possible to contemplate the general application of certain preventive measures. The case of goitre and that of certain avitaminoses are particularly striking.

Endemic goitre. The incidence of endemic goitre in the world is not known; scientific literature contains only fragmentary information on this subject. It is known that this disease, which is not found in districts where iodine is plentiful, is widespread in countries which are far from the sea and sea foods, as in high valleys in Europe, India, and South America. Lack of iodine seems to be an essential factor in this disease.

The most widely used prophylactic method consists in adding iodine to table salt. Potassium iodide, in amounts varying from 1 part in 10,000 to 1 part in 100,000, according to the country, is added to the crude salt during the refining process which transforms it into table salt ; the treatment undergone by the salt makes it possible to fix the iodine in a stable form. The iodization of salt is compulsory in some countries and optional in many others, but numerous countries have taken no steps in this connexion. In many regions, and particularly in underdeveloped countries, the people consume salt in its crude form ; it is difficult, however, to iodize crude salt in such a way as to produce a stable product. A technical procedure must therefore be found for incorporating iodine into crude salt, before the general application of this prophylactic method is contemplated. Another difficulty arises from the fact that the crude salt used for consumption is produced by small local undertakings. Thus, even if an iodization process for salt were perfected, it would not be easy to supervise its application.

In order to collect information on the extent of the endemic-goitre problem throughout the world, WHO sent a circular letter to the governments of Member States, inquiring as to the incidence and distribution of this disease in their countries, the preventive measures in force, and

the results obtained by these measures.[4] On the basis of the reports received, WHO intends to determine the distribution of goitre throughout the world, the part played by iodine in its prevention, and the measures applied in the different countries and their efficacy.

The goitre problem, which is of great importance in South America, will be included in the agenda of the coming FAO Regional Conference (Rio de Janeiro, 1950), in which WHO will actively participate.

Deficiency diseases associated with the vitamin B complex. Pellagra, the study of which was suggested by the First World Health Assembly, has been successfully controlled in many European and American countries by the administration of niacin (nicotinamide). Since the importance

FIG. 7. JOINT FAO/WHO EXPERT COMMITTEE ON NUTRITION, FIRST SESSION

Round table, from left to right : Dr Lu Gwei-Djen (UNESCO), Dr W. H. Sebrell, Professor G. Bergami, a secretary, Professeur E. F. Terroine, Dr J. M. Latsky (FAO), Dr W. R. Aykroyd (FAO), Lord Horder (Chairman), Dr F. W. Clements (WHO), a secretary, Dr Hazel K. Stiebeling, Dr J. Salcedo, Dr V. N. Patwardhan, Professor J. F. Brock, Professor M. J. L. Dols

and the distribution of this disease in the world are only imperfectly known, the committee recommended that WHO should collect all information likely to be of service, with a view to possible action at a later stage.

One of the members of the committee reported that the addition of synthetic vitamins to rice, which was the subject of recent experiments in the Philippines, has considerably diminished the incidence of beriberi. Similar trials have been made in the Far East.

Although the enrichment of rice with synthetic vitamins may be very useful in areas where beri-beri is widespread, it is merely a palliative. The committee stressed the fact that the success of these methods does not dispense with the need for improving diets based on rice.

[4] See *Chron. World Hlth Org.* 1949, 3, 267.

While the origin of certain deficiency diseases is now well known, the cause of various other complaints which also seem due to nutritional deficiencies is still undefined. The committee paid particular attention to one of these diseases, namely " kwashiorkor " (also known as malignant malnutrition, syndrome dépigmentation-oedème, etc.). This disorder, which is encountered in tropical and subtropical areas, is, as yet, a poorly defined syndrome, and causes very heavy infant mortality in certain countries. In Africa and Central America, where this condition is widespread, adults who have suffered from the disease during childhood frequently show cirrhotic changes in the liver. The committee felt that WHO should undertake a study of this disease, including the investigation of the diets of the population, particularly of pregnant women and young children. Comparison with the diet of peoples free from the disease would perhaps make it possible to discover the causative factor.

The investigation of eye disorders due to faulty nutrition, as well as of certain blood dyscrasias (e.g., anaemia), which also appear to be of nutritional origin, should, in the view of the committee, also figure in the future programmes of WHO.

Other Matters

Other subjects which will also be studied by FAO are: infant nutrition after weaning—in many areas children after weaning are put on a diet consisting of cereal preparations—the improvement of milk supply, and the production of foodstuffs capable of replacing milk and compensating for deficiencies in the diet of children.

Close collaboration between FAO and WHO will be maintained not only as regards the surveys and investigations mentioned, but also with respect to general technical and administrative activities, such as the allocation of fellowships, professional training, education of the public, and consultant services to governments.

THIRD SESSION OF THE JOINT OIHP/WHO STUDY-GROUP ON CHOLERA

The guiding principle of the important session of the Joint OIHP/WHO Study-Group on Cholera held at New Delhi from 15 to 19 November 1949 [1] was a search for the factors responsible for the endemicity of this disease.

Although, in the light of present-day knowledge and measures, the control of cholera epidemics does not present major difficulties, the problem

[1] The report on the third session of the Joint OIHP/WHO Study-Group on Cholera will be published, after approval by the Executive Board, in the *World Health Organization : Technical Report Series.*

FIG. 8. JOINT OIHP/WHO STUDY-GROUP ON CHOLERA, THIRD SESSION - I

From left to right, facing camera : Dr C. G. Pandit (Chairman) ; précis writer ; Dr R. Pollitzer (WHO) ; Professor K. Subrahmanyan ; Sir Aly T. Shousha, Pasha (WHO Regional Director for the Eastern Mediterranean) ; Lieutenant-Colonel M. Jafar. From left to right, back to camera : Dr P. M. Kaul (WHO) ; Dr C. Mani (WHO Regional Director for South-East Asia) ; Médecin-Général Inspecteur M. A. Vaucel ; Dr M. Gaud (OIHP) ; interpreter

of its endemicity is still full of unknown quantities. Very intensive research has been directed towards this problem, so that the study-group was able to examine 16 papers which were submitted to it during the session. The prevention of cholera epidemics depends essentially on a thorough knowledge of all the factors in the endemicity of the disease. Specifically, if it were possible to eliminate endemic foci, as roughly outlined in the light of the data collected, the problem of cholera epidemics could also be solved. It is therefore quite evident that this meeting of the study-group was of considerable interest.

The bases for these investigations had been laid down during the second session of the Joint OIHP/WHO Study-Group on Cholera, and certain factors governing endemicity had been suggested as subjects for study.[2]

Visits to Endemic Areas

The third session of the study-group was held at New Delhi to enable the participants to visit several areas of interest from the point of view of the problems which were subsequently to be tackled. In this way the

[2] *Chron. World Hlth Org.* 1948, **2**, 257

participants were able to meet the research team of the Indian Research Fund Association in the Tanjore district. They were also able to study on the spot water supply, irrigation systems, and the habits of the population, and to visit patients suffering from cholera. The study-group was impressed by the spirit of co-operation of the people and by their desire to improve their present state. They also paid a visit to the field laboratory set up at Trichinopoly, where bacteriological research and water analyses are carried out under good conditions. It is at this laboratory that the research team of the Indian Research Fund Association has established its headquarters for study and analysis of data.

Cholera Endemicity Problems

Members of the Cholera Advisory Committee of the Indian Research Fund Association, and other workers, as well as representatives from the public health administrations of the provinces where cholera is prevalent, were also present at the New Delhi meeting.[3]

The reports presented dealt with statistical and epidemiological studies and with several important bacteriological investigations. The work of the study-group made some new contributions, and, if this research continues, the link between epidemic outbreaks may be established. Work is at present being conducted under the auspices of the Indian Research Fund Association, with a grant-in-aid from the Office International d'Hygiène Publique. Thus, with the help of a centrally located field laboratory at Trichinopoly, epidemiological investigations are in progress in a selected endemic area of the Cauvery delta, which includes 30 villages and 60,000 inhabitants.

Among the papers presented we may mention: the viability of the vibrio in foodstuffs, fruit, and flies; its persistence in carriers and convalescents ; the effect of sulfonamides on vibrio excretion in carriers and convalescents; the Bandi test, etc. Several important conclusions were reached; the results, however, will have to be confirmed by subsequent work.

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[3] The following took part in this meeting :

Members :

Lieutenant-Colonel M. Jafar, Director-General of Health, Karachi, Pakistan
Dr C. G. Pandit, Secretary, Indian Research Fund Association, New Delhi, India (*Chairman*)
Médecin-Général Inspecteur M. A. Vaucel, Directeur du Service de Santé colonial, Ministère de la France d'Outre-Mer, Paris, France

Secretariat :

OIHP :
Dr M. Gaud, Directeur de l'Office International d'Hygiène Publique, Paris, France
WHO :
Dr P. M. Kaul, Medical Officer, Epidemiological Studies Section

Also present :

Dr C. Mani, Director, WHO Regional Office for South-East Asia, New Delhi, India
Dr R. Pollitzer, Epidemiologist, WHO Regional Office for South-East Asia, New Delhi, India
Sir Aly T. Shousha, Pasha, Director, WHO Regional Office for Eastern Mediterranean, Alexandria, Egypt (by special invitation)
Professor K. Subrahmanyan, Professor of Sanitary Engineering, All-India Institute of Hygiene and Public Health, Calcutta, India (special consultant to the study-group)

The laboratory diagnosis of the vibrio in acute cholera cases, as well as in carriers or convalescents, was the subject of an important paper submitted by M. L. Ahuja, K. V. Krishnan, S. R. Pandit, and K.V. Venkatraman. This work will probably be published shortly in the *Bulletin of the World Health Organization.*

The authors describe the most satisfactory laboratory method for detecting vibrios in stools. In cases of acute cholera it is preferable to seed the nutrient medium directly. On the other hand, for the detection

FIG. 9. JOINT OIHP/WHO STUDY-GROUP ON CHOLERA, THIRD SESSION - II

Round table, from left to right : Dr M. Gaud (OIHP) ; Médecin-Général Inspecteur M. A. Vaucel ; Dr C. Mani (WHO Regional Director for South-East Asia) ; Dr P. M. Kaul (WHO) ; Dr C. G. Pandit (Chairman) ; précis writer ; Dr R. Pollitzer (WHO) ; Professor K. Subrahmanyan ; Sir Aly T. Shousha, Pasha (WHO Regional Director for the Eastern Mediterranean) ; Lieutenant-Colonel M. Jafar

of vibrios in the stools of convalescents or carriers, enrichment methods must be employed. For this purpose the authors recommend Read's modification of Wilson and Blair's medium. If the number of samples to be examined is too high, it is preferable to examine pools of 10 samples at a time and, in the event of a positive result, to determine the particular sample responsible at a later stage.

Krishnan and Dutta also presented an important paper on the retrospective diagnosis of cholera by means of agglutination tests. This work opens up fresh prospects and will make it possible not only to diagnose cholera retrospectively but also, perhaps, to investigate the endemicity of an area and to assess the results of inoculation.

A polysaccharide with antigenic properties has been isolated from the vibrio by Ahuja. The potency of the vaccine may possibly be improved by making use of this knowledge.

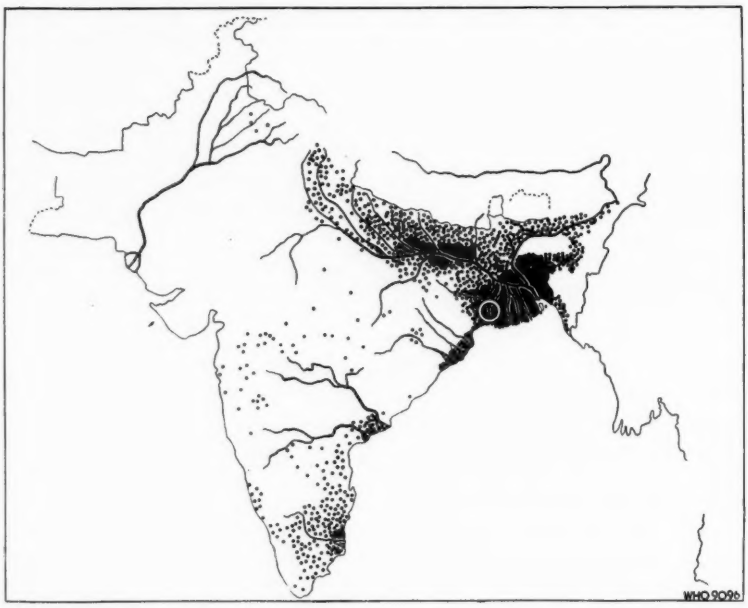
Krishnan also submitted a paper reviewing the present knowledge of the cholera vibrio toxin. Toxicity tests are likely to give us a better understanding of cholera pathogenicity and immunology. A preliminary study, by W. Doorenbos and G. N. Cossery Bey, on the reversion of the R type to the S type in the presence of antiphage serum was presented to the study-group by Sir Aly Shousha, Pasha. This work is still in progress and needs to be definitely established and confirmed.

Endemic Areas in India

Dr S. Swaroop, Professor of Statistics, All-India Institute of Hygiene and Public Health, Calcutta, has studied cholera endemic areas in India from three different points of view.

First of all, he took as basis the mortality due to cholera in each cholera-infected district and determined the 10 years within the last 45 years in

FIG. 10. CHOLERA ENDEMICITY IN INDIA IN RELATION TO THE RIVER SYSTEM



O = Area of highest endemicity
The degree of endemicity has been based on the average cholera incidence in the 10 years of lowest cholera mortality during the period 1901-1945

which the average mortality-rate was at a minimum. In this way the areas of high, moderate, low, or doubtful endemicity were ascertained, as well as the areas free from cholera. The distribution of these areas and the river system are shown in fig. 1. Although it does not give the exact delimitation of the endemic areas, this figure makes it possible to exclude a large number of districts in which endemic cholera is not expected to be found.

Continuity of infection is a more important criterion than the actual number of cholera cases in determining the endemic areas. Basing his work on this principle, the author noted the monthly cholera mortality over a 30-year period for each district, as well as the number of times when each district was free from cholera during one, two, three, or several months. This procedure gives an approximate idea of the cholera endemicity.

A third method of determining the endemic areas consists in proceeding in the same way but making use of weekly periods. Such statistics are available for the last 10 years. In this way a final grouping of endemic districts was found possible, which showed that the endemic areas are located in the alluvial, low-lying, and most humid areas, where the population is most dense.

Factors Governing the Endemicity of Cholera in India

The following factors seem to govern the endemicity of cholera in India: conditions connected with the deltas; high population density; high humidity; abundance of water not subject to any control; and salinity of water with a high organic content. However, in some areas where similar conditions exist, cholera is not endemic. For this reason the study-group recommended that data from different areas be compared in order to explain this phenomenon.

No relationship has been found to exist between cholera endemicity and the holding of fairs and festivals, though it is clear that such gatherings and the collective movements of peoples are factors favouring the spread of cholera.

WHO Programme for 1950

The study-group noted with satisfaction the decision of the Second World Health Assembly " to take the offensive and attempt eradication in well-defined endemic areas, rather than to keep a continuous and sterile watch in many provinces and countries against cholera invasion ".[4] The study-group therefore recommends the formation of two demonstration teams, one for the deltaic region of Madras, the other for an area in the East Bengal Province of Pakistan. The co-operation of the WHO Environmental Sanitation Section will be indispensable, in view of the

[4] *Off. Rec. World Hlth Org.* **18**, 110 ; see also *Chron. World Hlth Org.* 1949, **3**, 194

intimate relationship between permanent control of cholera and the necessity of providing pure water supplies and of sanitary disposal of excreta.

The study-group specially recommends:

(1) provision, by effective and economical methods, of pure water, in sufficient quantity to obviate the use of uncontrolled water supplies;

(2) provision of adequate toilet facilities for each family;

(3) assistance of the WHO Health Education of the Public Section in obtaining the co-operation of the local population in utilization of these facilities.

BILHARZIASIS

At its first meeting, held in Cairo between 24 and 29 October 1949,[1] the Joint OIHP/WHO Study-Group on African Schistosomiasis (Bilharziasis) stressed that " in many countries in which schistosomiasis is endemic, evidence already available indicates that it is a public-health problem second only to malaria ".

The danger resulting from the introduction of irrigation schemes or from the extension of irrigation in certain areas was emphasized by the study-group. It is the subject of very important recommendations concerning the safeguards, both administrative and technical, that are required. No irrigation scheme should be undertaken unless it has first been approved by the public-health authorities.

In view of the importance of this problem, the study-group asked WHO to bring the matter to the attention of the United Nations, of the Food and Agriculture Organization, and also of those governments that contemplate extending or introducing irrigation systems with a view to increasing food production.

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[1] The following took part in this session :

Members :

Dr M. A. Azim Bey, Director-General, Rural Health Department, Ministry of Public Health, Cairo, Egypt (*Chairman*)
Dr D. M. Blair, Director of Preventive Services, Department of Health, Salisbury, Southern Rhodesia
Dr J. Gaud, Directeur de l'Institut d'Hygiène du Maroc, Rabat, Morocco
Dr W. H. Wright, Scientist Director, Chief, Division of Tropical Diseases, National Institutes of Health (US Public Health Service), Bethesda, Md., USA

Secretariat :

OIHP :

Dr M. Gaud, Directeur de l'Office International d'Hygiène Publique, Paris, France

WHO :

Dr Y. M. Biraud, Director, Division of Epidemiology, WHO
Sir Aly T. Shousha, Pasha, Director, WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt
Dr M. M. Sidky, Medical Officer, Epidemiological Studies Section, WHO

The report on the first session of the Joint OIHP/WHO Study-Group on African Schistosomiasis will be published, after approval by the Executive Board, in the *World Health Organization : Technical Report Series.*

Present Extent of the Problem of Bilharziasis

Although the distribution of bilharziasis is not yet known with certainty, it is known that endemic and epidemic foci of this disease are widespread throughout the continents of Africa, Asia, and America, and that about 150 million individuals are affected.[2] The recent meeting in Cairo thus has special importance.

After reviewing the present information regarding the prophylaxis of bilharziasis, the study-group devoted particular attention to preventing the spread of this disease to new areas. It is a fact that the methods of combating bilharziasis have, in practice, proved insufficient to check epidemics. In Egypt, in spite of great efforts made to control the disease, the number of cases is still increasing. The possible spread of bilharziasis in the future must be considered. Indeed, bilharziasis may assume catastrophic proportions, not only in areas where it is already endemic, but also in areas where it does not yet exist, or at any rate exists only sporadically. For this to happen, it is sufficient that the different factors which cause infection are able to develop and cause an epidemic. Hence, the extension or the creation of irrigation systems in areas where bilharziasis is endemic might result in epidemics sufficiently serious to cause losses in capital and human life and to invalidate much effort.

Research Programme

The study-group stressed the importance of research on the distribution of bilharziasis according to the species of bilharzia and of snails, and has recommended the adoption of uniform methods for this purpose. "The knowledge to be obtained by such surveys is necessary to appreciate the social as well as the medical importance of the disease and to enable national and international health authorities to plan and carry out effective control measures." In medical literature, information on this subject is, in fact, incomplete. Other problems which would repay wider research are the importance of bilharziasis as a cause of death, of morbidity, and of the loss of productive capacity, as well as the susceptibility and immunity to infection with bilharzia. On the other hand, in order that a comparison of the results of an investigation may be made and also to enable the value of preventive and therapeutic measures to be determined, it is essential that uniform methods of diagnosis be adopted, both for intestinal and vesical bilharziasis.

Diagnosis, Treatment, and Prevention

Regarding the methods of diagnosis of intestinal bilharziasis, the study-group stated that the smear method gives only a low proportion of positive results, while rectal swabbing and precipitation, in a conical glass, of an emulsion of stools in normal or concentrated saline solution give higher

[2] See Shousha, A.T. (1949) *Bull. World Hlth Org.* 2, 19

percentages of positive results. Fülleborn's method, i.e., hatching the ova in water and then observing the miracidia, also yields a high proportion of positive results. Proctoscopy and rectal biopsy are reserved for doubtful cases. It is, however, necessary to repeat the examinations because the discharge of the eggs is not constant. With regard to the diagnosis of vesical or urinary bilharziasis, the specimen of urine should be taken from the last stage of micturition and the sample should be allowed to settle in a conical glass for 30 minutes before examination. The examination may be performed either microscopically or macroscopically and, in the latter case, will include observing the hatching of the ova. These uniform methods of diagnosis will enable the results of investigations to be compared so that the value of the preventive and therapeutic methods may be determined.

The study-group stressed how much it appreciated the work that had been done in Egypt in organizing the campaign against bilharziasis. This work has not only been conceived and carried out according to the most modern scientific methods, but it was in Egypt itself that several of the data were acquired. Even if, thanks to these efforts, the complications of bilharziasis have decreased in Egypt, it is nevertheless a fact that it has never been as widespread as it is at present. The chief cause of this state of affairs lies in the system of permanent irrigation which favours the propagation of the vectors of the disease. The destruction of snails by chemicals is, as yet, the best method for controlling bilharziasis since it does not require the active collaboration of the public. Copper sulphate is at present the most widely-used molluscicide; it should, however, only be used according to specified methods and techniques. New research on molluscicides and on treatment might bring about an improvement in the present situation. It is known that work is proceeding along these lines and that, as a result, two new molluscicides, namely, pentachlorophenol and pentabromophenol, have been discovered.[3] Research into the harmlessness of these molluscicides for man, as well as into their activity, should be carried out before they are generally applied. For sterilizing the human reservoir of the disease and for the treatment itself, effective, easily administered drugs of low toxicity must be made available. The most preferable means of administration would be orally. It is known that the antimonial drugs administered according to the classical method, i.e., by a prolonged series of intravenous injections, cause such inconvenience that many patients abandon the treatment before it is completed.

Recommendations of the Study-Group

It stands to reason that without education of the public no measure will be really effective. Educational propaganda should begin at school.

[3] Nolan, M. O. & Berry, E. G. (1949) *Publ. Hlth Rep., Wash.* **64**, 942

Education must aim at changing the habits and customs which foster infection. It is therefore especially necessary to point out the factors causing pollution of streams.

The need for trained personnel to carry out bilharziasis surveys and to conduct the campaign against this disease will become increasingly urgent. It is therefore recommended that WHO should grant fellowships for the training of specialists and, if necessary, should organize courses on bilharziasis in specialized centres.

As regards the extension or creation of irrigation systems, the study-group formulated clear recommendations of an administrative and technical nature.

Approval of the plans by the public-health authorities should be a prerequisite for any kind of new irrigation system and for the financing of such work out of public funds.

Every irrigation area should be provided with a medical and sanitary organization capable of examining and treating, if need be, the population of such an area. Villages should be set up as far as possible from streams and canals and should be provided with drinking water and privies in accordance with hygienic requirements. It is known that it is possible to remove cercariae from water, either by storage in reservoirs protected from snails or by disinfection with chlorine in a concentration of 1 part per million. This latter method enables the cercariae to be destroyed within 30 minutes.

The study-group urged that " the priority of Bilharz, as describer of the causative parasite of schistosomiasis, should be recognized and that accordingly the name of *Bilharzia* be retained for its genus and the name bilharziasis for the disease ". WHO will have to take the appropriate steps with the Nomenclature Committee of the International Zoological Congress and with the WHO Expert Committee on Health Statistics as regards, respectively, the names of the parasite and of the disease.

PUBLIC HEALTH IN THE TRUST AND NON-SELF-GOVERNING TERRITORIES

In accepting " as a sacred trust " [1] the responsibility of ensuring the " political, economic, social, and educational advancement " of the 200,000,000 inhabitants of the non-self-governing territories, the governments administering these territories recognize the necessity of concerning themselves with health matters, a prime factor in social progress. These

[1] Charter of the United Nations, Chapter XI, Article 73

governments send regularly to the Secretary-General of the United Nations information on the economic and social conditions, including public health, in the territories under their management.

These reports on the welfare and progress of the non-self-governing peoples are of two types. Those dealing with trust territories (British Cameroons, British Togoland, French Cameroons, French Togoland, Nauru, New Guinea, Pacific Islands, Ruanda Urundi, Tanganyika, Western Samoa) must be submitted annually to the Trusteeship Council of the United Nations. Reports on the 68 non-self-governing territories are optional and are examined by a special commission set up by the General Assembly of the United Nations.

To ease the task of the authorities responsible for preparing these reports, and to facilitate their analysis and integration by the Secretary-General of the United Nations, a *Questionnaire* was drawn up in 1947 for the use of governments administering the trust territories; a *Standard Form* was devised to serve the same purpose for those concerned with the interests of the non-self-governing territories. These two documents contain a list of headings and indicate the points on which information is required. Questions on public health and sanitation are included under the heading " Social Conditions ". It was considered advisable to revise this section in both the *Questionnaire* and the *Standard Form*. A panel of experts,[2] assembled by WHO, met in Geneva from 19 to 21 September 1949 for this purpose and proposed various modifications of these two documents which, in their new form, will not only be more precise and detailed, but will also make comparisons of information contained therein easier.

In the *Questionnaire* are headings such as population figures, classified by age, sex, and race; and statistics on birth-rates, mortality-rates, infant mortality, and maternal mortality. (The maternal mortality-rate will be calculated on the basis of the number of deaths, per thousand live births, due to the causes enumerated under headings 640-689 in the *International Statistical Classification of Diseases, Injuries, and Causes of Death.*) Other questions concern the organization of the health services and the budget allocated for these services (including the proportion of the total revenue of the territory which it represents); the various hospital facilities (maternity homes, treatment centres for treponematoses, leper hospitals, etc.); the health and nutritional state of the population; the morbidity

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[2] The following were present at this meeting :

Members :

Professor G. Macdonald, Director, Ross Institute of Tropical Hygiene, London School of Hygiene and Tropical Medicine, London, United Kingdom

Professeur J. Rodhain, Directeur honoraire de l'Institut de Médecine tropicale Prince Léopold, Antwerp, Belgium

Médecin-Colonel G. Saleun, Adjoint technique du Directeur du Service de Santé colonial, Ministère de la France d'Outre-Mer, Paris, France

Secretary :

Dr G. W. Miller, Assistant to Director, Division of Planning, WHO

state as determined from epidemic or endemic diseases and from nutritional deficiency diseases; and, finally, the causes of death. The *Questionnaire* also contains requests for information on the activity of the health services, the protection of the health of workmen, and the measures taken to control malaria and other endemic diseases, tuberculosis, leprosy, venereal diseases, etc. Questions regarding sanitation treat particularly with the disposal of waste matters, the supply of drinking water, and the inspection of foodstuffs. A final group of questions concerns the academic qualifications necessary for the practice of medicine and the institutes of higher education where the inhabitants of the country may acquire a diploma in medicine, dentistry, pharmacy, or sanitation.

Items of a similar nature are also found in the *Standard Form*, for which the panel of experts proposed revisions analogous to those suggested for the *Questionnaire*.

WHO Publications

World Health Organization : Technical Report Series

Beginning in 1950, reports of meetings of the expert committees and other technical advisory bodies convened by, or held under the auspices of, the World Health Organization will be published as a new series and not, as heretofore, in the *Official Records of the World Health Organization.*[1]

Now available in this series are :

1. Expert Committee on the Unification of Pharmacopoeias : report on the fourth session
2. Expert Committee on Biological Standardization : report on the third session
3. Expert Committee on Biological Standardization : report of the Subcommittee on Fat-Soluble Vitamins

In press are the following :

4. Expert Committee on Insecticides : report on the first session
5. Expert Committee on Health Statistics : report on the first session
6. Active immunization against common communicable diseases of childhood

International Digest of Health Legislation

Vol. 1, No. 2 of the *International Digest of Health Legislation* has now been published in English and in French. The *Digest* contains reprints and translations of, or extracts from, the texts of the most important laws and regulations dealing with public health and related subjects, sent by governments in fulfilment of their obligations under Article 63 of the Constitution of the World Health Organization.

This number of the *Digest* contains 33 laws from 13 different countries—on subjects as diversified as " Deratization of Ships " and " Control of Antibiotics ". Also included is a list of titles of laws published in official gazettes, or promulgated by governments, during 1947.

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[1] *Off. Rec. World Hlth Org.* **8, 11, 15, 19**

Notes and News

WHO Antimalarial Team Fights Plague Epidemic in India

A WHO antimalaria demonstration team,[1] headed by Mr P. Bierstein, a sanitary engineer, has assisted in fighting an outbreak of plague that occurred at Shimoga in the State of Mysore (India). Plague, which is endemic in this town of 60,000 inhabitants, assumed violent epidemic proportions at the end of October 1949. The method of control adopted consisted in spraying DDT in suspension; this technique was specially adapted so that it would be effective against fleas, the vectors of the disease. Mr Bierstein and seven of his staff, assisted by locally recruited personnel, were able to start work by 4 November.

WHO Mental Health Consultant in the Philippines

The Philippine Republic has been the first country to request the aid of WHO for assistance in establishing a modern organization to deal with the mental health problems throughout its territory.

Dr E. E. Krapf of Buenos Aires, WHO expert consultant, left Geneva on 12 November 1949 for a two to three months' mission in the Philippines. He is to meet local psychiatrists, who will assist him in surveying the country's resources and needs, and will stay first of all in Manila. Dr Krapf will later submit a mental health programme to the Philippine Government covering both the preventive and therapeutic aspects of the problem.

Dr Krapf is Associate Professor of Psychiatry at the University of Buenos Aires, a member of the Executive Board of the World Federation for Mental Health, and is the author of more than 60 publications.

Bulgaria Decides to Withdraw from WHO

In a letter dated 29 November 1949, addressed to Dr Brock Chisholm, Director-General of WHO, and received in Geneva on 6 December, the Bulgarian Minister for Foreign Affairs communicated his Government's decision to withdraw from the World Health Organization.

In his letter, the Bulgarian Minister for Foreign Affairs recalled that during the Second World Health Assembly, held in Rome in June 1949, Bulgaria was among those countries which had criticized the methods adopted and the results obtained by WHO. He added that the activities of the Organization and the practical results obtained " are completely insufficient, above all in the domain of mutual assistance in the international health field, whilst the methods and policies adopted are adjudged inadequate in relation to the tasks entrusted to the Organization at its inception ". The Member States of WHO were informed at once of this decision by a circular letter.

Bulgaria is the fourth country that has declared its intention of withdrawing from the Organization for, in February 1949, the USSR, Byelorussia and the Ukraine let it be known that they no longer considered themselves Members of WHO.[2]

Sixty-eight States Members of WHO

Bolivia has recently ratified the Constitution of WHO, thus bringing the total number of Member States of the Organization to 68. A list of countries which are now members of WHO (listed according to the dates of ratification) may be found in *Chron. World Hlth Org.* 1949, **3**, 298.

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[1] See *Chron. World Hlth Org.* 1949, **3**, 135.

[2] *Chron. World Hlth Org.* 1949, **3**, 56